

# METHOD AND APPARATUS FOR SEALING SUBSTRATE LOAD PORT IN A HIGH PRESSURE REACTOR

## ABSTRACT OF THE DISCLOSURE

Methods and an apparatus for providing an intrinsically safe chamber door for a processing chamber capable of operating at high pressures are provided. One exemplary apparatus includes a processing chamber for a substrate where the chamber is configured to operate at a positive pressure. The processing chamber includes a port loading slot for providing access for the substrate into and out of the chamber. A chamber door positioned inside the chamber is included. The chamber door is configured to seal against an internal surface of the chamber thereby blocking access through the port loading slot. An internal pressure of the chamber assists in sealing the chamber door against the internal surface of the chamber. Also included is a door actuating mechanism configured to move the door along a door path where the door path is positioned at an angle to a path to be traversed by the substrate.